

News from Member Clubs

All at the German Shepherd Dog Club of Essex are proud of one of our younger members, Chloe Wakeling, whose dissertation is being presented by Ray Owen at the Euro Dog Show Conference "Breeding To the Standard", in Barcelona in front of 300 delegates in May 2016. Chloe is currently a 3rd Year Animal Management BSc (Hons) Student at Writtle College, in Essex.



Assessing Canine Breeders choices when determining a suitable Stud across 15 Breeds within the Pastoral Group in the United Kingdom.

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Primary aims of the study was to evaluate breeder's preliminary choices when picking a canine stud for a potential brood bitch, also assessing the awareness and usage of readily available literature and online services tools across 15 breeds in the United Kingdom Kennel Club in the Pastoral group, with in particular mention and attitudes linked to Popular Sire Syndrome.

The practice of breeding pedigree dogs has become a vast and critical activity across the UK, with breeders producing litters to their own subjective image of the 'perfect dog', in variety of disciplines ranging from showing to testing innate working abilities (Nicholas *et al.*, 2011). Popular Sire Syndrome (PSS) has become the most alarming breeding practice due to intense pressure breeder's face to produce the faultless dog with resulting in genetic bottlenecks, reproductive problems and hereditary disorders. The GSD is the most extreme example affected, with currently 70 identified hereditary disorders as well as bloodlines used as breeding preference that results in a particular phenotype has become an additional ramification, as seen in Plate 1 and 2 (Wahl *et al.*, 2008; Leroy, 2011; Mellanby *et al.*, 2013). Cataloguing the prevalence and diseases linked to breeds is critical to management and prevention of PSS while also creating awareness to breeders about scientific literature.



Plate 1: 'English Type' GSD Ch. Surrstone Coolio for Windgunn (Vorrias, 2016)

The study was a 27 part questionnaire with 9 demographic questions, with 15 breeds chosen and involved in the study. The 15 breeds were split into three categories for data analysis, breeds for each group were decided upon Kennel Club registrations, table 1 displays the breeds used in the study. Raw data was collected through breed societies and social media, with data analysed by Genstat and Chi-Squared statistical method.

Table 1: Breed categorised and used in the study

Popular Breeds	Common Breeds	Rare Breeds
German Shepherd Dog	Bearded Collie	Briard
Border Collie	Samoyed	Pyrenean Mountain Dog
Shetland Sheepdog	Pembroke Welsh Corgi	Belgian Shepherd Dog (Groenendael)
Rough Collie	Belgian Shepherd Dog (Malinois)	Polish Lowland Sheepdog
Old English Sheepdog	Australian Shepherd	Turkish Kangal Dog



Plate 2: 'Germanic Type' GSD Ch Conbhairean Waro Top Sire 2015 (McDonald, 2016)

Results

The top quality for what a breeder searches for in a stud dog in the popular and common breeds group was temperament at 86% ($p < 0.010$) the rare groups most popular choice was conformation at 27%, however the second choice for the popular and rare groups was health tests, whilst for common breeds conformation was the second prevalent variable. Stud Fee was consistently the last decision for picking a stud dog across the three groups, figure 1 summaries the qualities breeders ideally look for in their stud dogs.

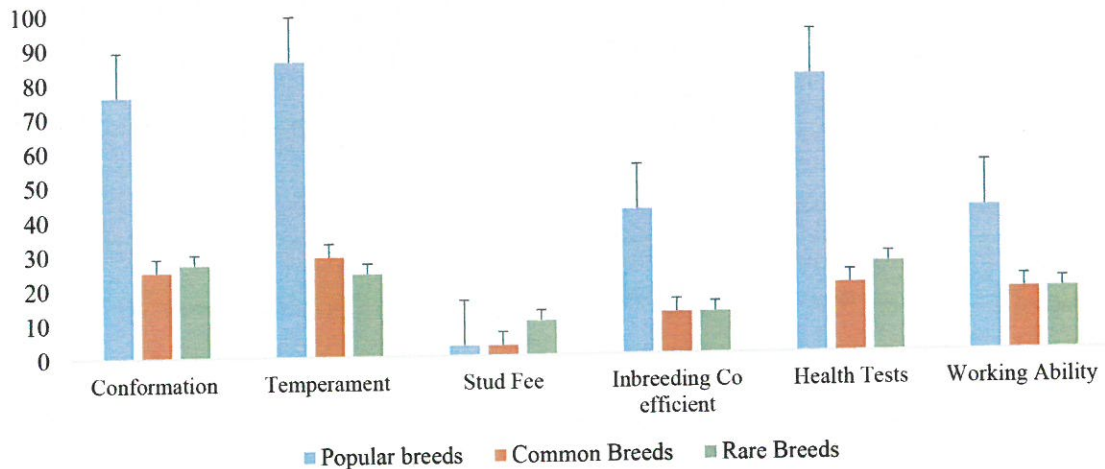


Figure 1: Comparison of six stud dog qualities breeders consider when looking for a stud dog ($p < 0.010$) (Source: Authors Own)

Health tests was consistently in the top 3 choices for picking a stud for breeders, this can be deemed an impractical breeding strategy, as if a dog is a carrier of disease most breeders would probably not choose that dog. Not choosing a stud with poor results but otherwise desired qualities this could unconsciously be increasing other alleles that have more harmful effects, such as founder effects, inbreeding and genetic bottlenecks (Farrell *et al.*, 2015). Carriers if chosen to breed from must be bred carefully to clear dams only, with applying the Hardy-Weinberg Law that no dog is clear of harmful recessive genes (Nicolas and Wade, 2011).

68% of breeders felt Hips and Elbow scoring needed to become mandatory testing in breed health schemes with 39.8% of breeders believing once in a lifetime testing was adequate for hip and elbow scoring. Popular breeders were 60% more likely to consider Artificial insemination (AI), with 86% ($p < 0.005$) of breeders who had bred 0 champions were more likely to consider AI. Western Europe was the top geographical region for considering importing frozen from, with Scandinavia as second choice. 37% of popular breeders would consider looking for a stud dog with working qualifications, with 71% of new breeders (<1 year) considers working qualifications very important as a stud quality. 65.5% of breeders thought it was very important for score limits to be set in place either at shows or for breeding, with 35% of breeders believed primary at Championship Show entry. Only 5% of common breeds would consider a stud dog with a working qualifications, with rare breeds just 1%. The Stud Book number was the most highly desired and achieved accolade other than CC's ($p < 0.484$). 86% of breeders are unaware of the Breed Disorder Welfare Indicator Score, 87% of Popular and Common breeders who are on the AI judging lists have never heard of the BDWIS, whilst

Popular Sire Syndrome

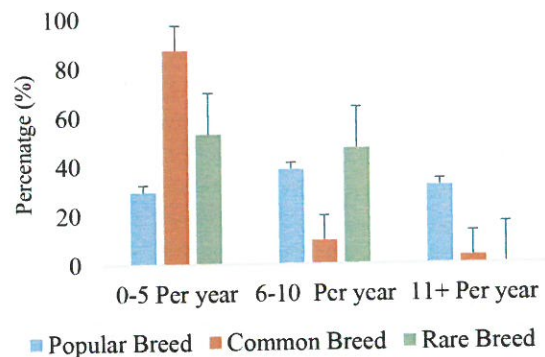


Figure 2: Proposed amounts of how many times a stud should be mated per year ($p < 0.001$) (Source: Authors own)

PPS is a considerable problem that is accountable for disease prevalence, with >90% of single variants lost in 6 generations, with leading to populations with reduced heterozygosity. Breeders of popular breeds believed that 6-10 times a year was an ideal amount to breed a stud dog of popular breeds, with this suggested limitation.

Common and Rare breeds believed 1-5 times a years was a suitable stud restriction was adequate, this is ideal for the rare breed group having a limited stud market, not ideal for the common breeds however.

Conclusion

The issue of extreme breeding of conformation and creating subtypes and homozygous, in particular AUS, GSD, BC and the Shetland Sheepdog, it can be suggested that is not down to a singular mating but rather PSS. A sire is popular for reason, a successful showing carrier with a sound temperament and respectable health test results, with

many examples of studs that fit this criteria makes for desirable litters.

Clear and key aims need to be established for canine breeders, the aims below potentially have a realistic place in the UK breeding standards that breeders favour by evidence of this study:

1. The definition of a popular sire on the combination of CCs, Reserve CC's, Green Stars, coverings and placement in the Royal Canin Top Dog and Stud dog competition in a 12 month period.
2. Setting up Stud Dog limitations of no more than 10 litters/coverings over the course of 2 years (5 litters a year) if considered a popular sire by aim 1.
3. Breeds that received under 100 KC registrations a year would receive tighter stud limitations due genetic bottleneck and inbreeding depression of 3/4 litters/coverings a year.
4. Frozen foreign semen to be integrated as standard breeding practice, with a least 4 litters over 2 years produced by foreign unrelated stud dogs in the UK.
5. Score health test limits need to be applied on exhibition and breeding, with an applicable base line scores on breeding male dogs.
6. Prevent formation of split types of breeds to prevent the gene pool becoming heterozygosity and exaggerations of subtypes.

Applying realistic aims, the launch process of controlling PSS can begin effectively encouraging heterozygosity, with education for breeders and judges as key.

References

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OBITUARY

Gillian Ash "Gregrise"

I am sad to report that Miss Gillian Ash of the partnership of Mrs Edna Day and Gillian Ash of Gregrise German Shepherds passed away on Sunday 21st February at the age of 86 years. Her health had deteriorated over the last few years and eventually severe dementia took over. Her funeral took place at St. Andrews Church in Wincanton, Somerset on 9th March.

My mother, Edna Day, who died in 2002 and Gillian Ash will be remembered for their very successful dogs, Champions Gregrise Velveteen, Alice Blue Gown and Liquid Fire amongst many other top honours awarded to their kennels.



Champion Gregrise Velveteen

They also bred and achieved Champions Papillion, Red Setter and Persian cats. Together they both judged German Shepherd Dogs at Crufts in 1997. Their partnership spanned from 1963 to the end of the millennium.

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